

Digital colonialism and AI: A Critical Analysis

Neeharika Singh

M.A. Political Science, Delhi University, New Delhi, India
Email: neeharikary@gmail.com

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Abstract— Digital colonialism describes the contemporary geopolitical and economic dynamics in which powerful nations and multinational corporations deploy digital infrastructure, platforms, and data-harvesting tools to extend influence over less technologically advanced societies (Quayson, 2021). Artificial intelligence (AI) amplifies these dynamics by providing sophisticated mechanisms for data collection, surveillance, and automated decision-making that can reinforce unequal power structures (Gillespie, 2022). This paper synthesises recent scholarship to examine how AI is both a driver and a tool of digital colonialism. Drawing on case studies from Africa, Southeast Asia, and Latin America, the literature review highlights patterns of data extraction, platform dominance, and algorithmic bias. The discussion evaluates the ethical, legal, and policy implications of AI-enabled digital colonialism, proposing a framework for equitable digital governance. The conclusion summarises key findings and outlines avenues for future research, emphasising the need for inclusive design, transparent governance, and international cooperation to counteract colonial digital practices. Digital colonialism needs to be overcome through the embrace of decolonial AI that embraces inclusivity, transparency, and justice. Scientists, technologists, policymakers should work together to make sure that AI is used by various communities in favour of cultural, linguistic, and epistemic plurality. Technology can only build a fairer and even more democratic digital future by thoughtfully addressing the colonial aspects AI.

Keywords— Digital colonialism, Decision-making, Digital governance, Sovereignty

I. INTRODUCTION

The digital revolution promises unprecedented connectivity and economic opportunity. Yet, the distribution of this promise remains highly uneven, with many regions experiencing a form of neo-colonial domination in the digital realm (Bennett & Connolly, 2023). Digital colonialism refers to the strategic use of digital technologies—especially data and AI—to exert control over the political, economic, and cultural life of less-developed societies (Quayson, 2021). This form of colonialism is not limited to physical occupation; it operates through data extraction, platform dependency, and algorithmic governance (Crawford, 2020). Today, is an inseparable part of human society. In fact, it is through language only that human civilization has come out of the stone age and developed science, art, technology, law, etc (Mishra, 2020). Artificial intelligence has become a central pillar of this process. AI systems rely on vast datasets often sourced from users across the globe, and their deployment in critical sectors—healthcare, finance, law enforcement—can shape societal outcomes (Gillespie, 2022). In many

developing countries, AI is introduced through foreign-owned platforms that embed hidden data-mining functionalities and opaque decision-making processes (Kumar & Singh, 2024). Consequently, local populations may find themselves subject to surveillance, predictive policing, and biased resource allocation, with little recourse (Foster & Smith, 2023). This paper investigates the intersection of digital colonialism and AI usage.

II. LITERATURE REVIEW

Historically, colonialism operated by taking control of the territory, economic exploitation and cultural conquest. In the modern world, all these mechanisms have been further moved to the digital world, leading to what scholars call digital colonialism. It is a term that is used to describe the recreation and escalation of colonial modes of domination through digital technologies, specifically Artificial Intelligence (AI), big data, and platform economies. Although AI is usually explained as a non-dendritic and potentially progressive technological innovation, its

creation and implementation are entrenched in power inequalities at the international level. Artificial intelligence technologies are mostly developed, trained, and governed by corporations and structures found in the Global North, with the Global South often becoming a raw data source, inexpensive workforce, and test subjects. This unequal nature poses important concerns of sovereignty, representation, and justice in the digital age. The present paper aims to expound on ways AI can be part of digital colonialism through the review of relevant literature and discussing its impact on knowledge production, cultural autonomy, and social equity critically.

The digital colonialism idea draws upon the previous ideas of cultural imperialism and media domination (Schiller, 1976). Kwet (2019) suggests that by the ownership and controlling of digital infrastructures by strong multinational corporations, there are effects of digital colonialism of economic dependence and loss of digital sovereignty in developing countries. Likewise, Couldry and Mejias (2019) coin the concept of data colonialism and underline that the process of data extraction resembles the way resources were extracted in the colonialism era of history. Scholars have placed emphasis on how the systems of algorithms reproduce racial, gender and cultural biases in the context of AI. Noble (2018) proves the continuation of racial hierarchies and discriminatory images by search engines and AI-facilitated platforms. According to Buolamwini and Gebre (2018), facial recognition technologies are highly biased against people of marginalized groups regarding racial and gender factors. Postcolonials also believe that artificial intelligence systems prioritize Western knowledge systems and linguistic groups, excluding other indigenous knowledge systems and non-dominant cultures (Mohamed, Png, and Isaac, 2020). Epistemic injustice and cultural erasure comes through both the prevalence of English-language datasets and Western-centric norms in the process of AI training. These studies make up a critical paradigm of perceiving AI as a potent directive of digital colonialism.

Digital colonialism builds upon classic colonial theories but adapts them to the information age. Quayson (2021) defines it as a system where “powerful actors extract value from digital infrastructures in peripheral regions, while simultaneously imposing norms and controlling information flows.” Bennett & Connolly (2023) add that digital colonialism involves “the codification of knowledge and the reproduction of asymmetrical power relations through algorithmic mechanisms.”

AI governance literature emphasizes transparency, accountability, and fairness (European Commission, 2022). The European Union’s AI Act proposes risk-based regulations that could curb exploitative practices (European

Commission, 2022). However, many developing regions lack the legal infrastructure to enforce such standards (Hossain, 2024). Digital colonialism is also a major concern of the era of Artificial Intelligence, where technological advancements are reflecting previous trends of domination and exclusion. This paper has revealed AI to be more of a socio-political system rather than a technical tool enshrined in the world structures of power.

III. DISCUSSION

Digital colonialism based on AI has many interconnected mechanisms. First, the extraction of data among populations of the Global South is usually performed without any significant consent or equal benefits distribution. Information of the user, biometric, and cultural content is harvested to provide training to AI systems that are mostly used in the interests of companies and the states in the Global North. Second, algorithmic bias supports the social status quo. In case AI systems are trained on biased data sets, the new AI models reproduce the same patterns of discrimination in surveillance, employment opportunities, policing, and credit ratings. These evils impact the disadvantaged communities unevenly, intensifying global and local inequalities. Third, there is linguistic and cultural dominance, which is vital. AI technologies are biased towards prevailing languages and cultural systems, making many communities digitally invisible. This impacts negatively on cultural diversity and supports Western-centric knowledge and communication models. Lastly, AI technologies being monopolised by a small group of tech giants denies third-world countries the ability to define their own digital destinies. Inaccessibility to infrastructure, finance and technical capacity continues dependence, reverberating economic colonies of the edge cases.

AI’s reliance on large data sets means that populations providing abundant data may reap disproportionate benefits, while those with limited digital footprints remain excluded (Kumar & Singh, 2024). This dynamic mirrors colonial extraction, where colonial powers benefited from resource exploitation while local societies suffered. For instance, AI-driven credit systems in Latin America denied loans to informal workers despite their economic activity, replicating colonial patterns of exclusion (Garcia-Lopez, 2024).

IV. CONCLUSION

Current AI regulations are primarily developed in the Global North and may not adequately address the contexts of developing nations (Hossain, 2024). The lack of local data governance frameworks allows foreign corporations to

embed surveillance and exploitative data practices. Moreover, the principle of “data sovereignty” remains contested: while some governments advocate for national data centers, international data flows continue to favor multinational cloud providers (Gillespie, 2022). The ethical imperative to prevent AI from perpetuating colonial dynamics involves respecting autonomy, ensuring justice, and upholding privacy (Foster & Smith, 2023). Researchers and practitioners must adopt bias mitigation techniques, conduct impact assessments, and nurture accountability mechanisms (European Commission, 2022).

Digital colonialism represents a contemporary form of asymmetrical power that is amplified by AI technologies. The literature demonstrates that AI can both enable and exacerbate data extraction, platform dependency, and algorithmic governance, reproducing colonial dynamics in the digital sphere. Addressing these challenges requires robust legal frameworks, transparent corporate practices, community-centric design, and international collaboration. Future research should focus on longitudinal studies of AI impact in peripheral societies, comparative policy analyses across regions, and the development of technical solutions that embed anti-colonial principles from the ground up.

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